



## VMware Solutions for Small to Medium Businesses

### Optimizing and Protecting Business Assets through Virtualization

#### SMB Challenges Today

Small and medium businesses (SMBs) are always looking for new ways to optimize their existing IT investments. Specific goals include:

- **Leveraging IT Assets.** SMBs typically do not have a lot of discretionary cash to outlay – they need cost-effective solutions that can better leverage their existing storage, network and server resources.
  - **Increasing the efficiency of IT Professionals.** Most SMBs have limited IT headcount and spend too much of their time on monotonous IT management activities. IT departments need easy-to-use solutions that can simplify their IT environments and reduce the amount of time they spend managing and maintain them.
- SMBs are also seeking ways to ensure business continuity and to protect and enhance the systems, data, and applications that run their businesses, by:
- **Improving Availability and Ensuring Business Continuity.** SMBs need efficient ways to back up and restore production systems while minimizing downtime. While most SMBs employ some level of back up strategy, very few actually test it for recovery capabilities. Given that 60-90% of companies without a disaster recovery plan fail within 24 months of a disaster occurring, SMBs need to consider a full business continuity plan to ensure recovery of business-critical systems at all times – or risk losing their businesses.

*"Bowdoin has a VMware-first policy for any new system—not only because of the disaster recovery benefits of VMware virtualization, but also because of the other cost savings and efficiencies that VMware software enables."*

Tim Antonowicz, Senior Systems Engineer, Bowdoin College

- **Testing Applications before Production.** According to Gartner Group, 80 percent of unplanned downtime is caused by application and production errors, costing an average of \$100,000 per hour. Unfortunately, there is often little time or staging infrastructure for thorough patch testing, migration, or upgrade projects at SMBs. These organizations need to create pre-production or testing environments to test solutions before deployment to avoid costly problems after they go live.
- **Deploying Applications in a Secure Environment.** After these business applications have been thoroughly tested, they need to be deployed into secure environments to protect the livelihood of SMBs.

#### The Basics of Virtualization

Virtualization technology simplifies IT so that companies can leverage their storage, network, and computing resources to control costs and respond faster. The virtual infrastructure approach to IT management creates virtual services out of the physical IT infrastructure, enabling administrators to allocate these resources quickly to the highest priority applications and the business needs that require them the most.

With virtualization, hardware management is completely separated from software management, and hardware equipment can be treated as a single pool of processing, storage, and networking power to be re-allocated on the fly to various software services. In a virtual infrastructure, users see resources as if they were dedicated to them – while administrators gain the ability to efficiently manage and optimize resources to serve the needs of the business.

#### Benefits of VMware Virtualization for SMBs

VMware equips SMBs with technology that allows them to cost effectively optimize the use of their existing IT assets and resources as well as protect the systems, data, and applications that run the business. With analysts predicting the adoption of virtualization among SMBs to double in the next 24 months – these benefits are making the once cutting-edge technology a main-stream mandate for managing IT effectively.

Through the use of virtualization, SMBs are able to:

- **Improve the utilization of the servers they own today.** VMware virtualization results in fewer resources to manage, power, store, and buy – enabling SMBs to increase utilization rates for x86 servers from 5-15% up to 60-80%.

- **Increase IT staff productivity.** VMware infrastructure is easy to deploy, use, and manage. It provides IT professionals with the freedom to be released from menial tasks, enabling them to take a more strategic role in the enterprise.
- **Increase business responsiveness through improved efficiency, flexibility and responsiveness.** Managing a virtual infrastructure allows IT professionals to quickly connect and manage resources to meet ever-changing business needs. VMware virtualization can result in faster provisioning of new applications in minutes, not weeks, and can accelerate change request response times from hours or days to just minutes.
- **Provide business continuity with disaster recovery and automated back up.** VMware virtualization helps SMBs protect critical data and applications that keep the business running with zero-downtime hardware maintenance, eliminating the need for maintenance windows.
- **Improve application quality and availability.** With VMware virtualization, SMBs can test more applications by optimizing pre-production staging environments, resulting in less downtime for the applications that run and drive the business.

## VMware Solutions for SMBs

VMware offers a variety of solutions that SMBs can use to reduce the cost and complexity of their IT investments and ensure business continuity:

### 1. Solutions for Getting Started with Virtualization

VMware offers many products that enable SMBs to quickly start experiencing the many benefits of virtualization:

- **VMware Server** is a free virtualization product for Windows and Linux servers. It enables companies to partition a physical server into multiple virtual machines to quickly start experiencing the benefits of virtualization. VMware Server is a robust yet easy-to-use product for users new to server virtualization technology and is based on proven technology from VMware.
- **VMware Converter** is also a free VMware virtualization product that can be used to easily convert physical servers into virtual machines running on VMware Server. This simple-to-use tool enables SMBs to consolidate underutilized hardware onto the VMware Server box, freeing that hardware for other uses.
- **VirtualCenter for VMware Server** is the only virtualization management offering designed to manage a free (**VMware Server**) virtual environment. It is ideal for SMBs that have three or more physical boxes loaded with virtual machines and could benefit from a central management platform to help provision new servers, manage utilization, and more.

### 2. Advanced Virtualization Solutions

For companies looking for enterprise-class functionality, there are additional VMware products that will provide the next level of virtualization benefits:

- **VMware Infrastructure 3** is the industry-leading infrastructure virtualization software that virtualizes servers, storage, and networking – allowing multiple unmodified operating systems and their applications to run independently in virtual machines while sharing physical resources. With feature-rich functionality, this bare-metal virtualization solution brings SMBs a scalable way to deploy high availability and disaster recovery solutions that ensure business continuity.
- **VMware VirtualCenter** enables SMBs to achieve the highest levels of efficiency, automation, simplicity, and security in managing virtualized IT environments of any size. Its centralized management capabilities enable SMBs to organize, monitor, and configure the entire IT environment through a single interface, resulting in lower operating costs. It provides the ability to rapidly provision virtual machines and monitor performance of physical servers and virtual machines.
- **VMware Virtual Desktop Infrastructure** is ideal for mobile workforces or remote locations that rely on centralized IT resources. VMware Virtual Desktop Infrastructure consolidates the solution into central “pools” where the application is on a server, not on each individual laptop. This solution makes it easy to upgrade and deploy applications, while increasing security.

### 3. VMware Solutions for Test and Development

For SMBs whose primary business is building software applications, there are two VMware solutions that can greatly improve test/QA and development projects:

- **VMware Workstation** is powerful desktop virtualization software for software developers/testers and IT professionals that run multiple operating systems simultaneously on a single PC.
- **VMware Lab Manager** is robust virtual lab automation software for distributed groups of developers or larger distributed testing teams. It enables SMBs to develop software with a competitive advantage over traditional environment provisioning and bug tracking in test/QA and development groups.

*“Virtualization squarely hits on the pressing need of SMBs: an easier way to manage IT and implement advanced functionality...Virtualization will become standard infrastructure...”*

Yankee Group, SMB Infrastructure Goes Virtual, January 2007

## For More Information

To learn more or try VMware solutions and products, please visit the VMware Web site at <http://www.vmware.com> or find a local VMware partner using the online search.

	VMware Product Offerings	Description
<b>Getting Started Products</b>	VMware Server	Virtualization that offers basic capabilities at no cost. Ideal for price-sensitive businesses and groups.
	VMware Converter	Enables fast and reliable physical-to-virtual (P2V) and virtual-to-virtual (V2V) conversions through a simple and centralized management product.
	VirtualCenter for VMware Server	Provides central management for the free VMware Server product
<b>Advanced Products</b>	VMware Infrastructure 3	Virtualization that offers high performance, robust, scalability. Offers technology for disaster recovery, high availability, and business continuity.
	VMware VirtualCenter	Central management for VMware Infrastructure 3 environments.
	VMware Virtual Desktop Infrastructure	Solution for mobile workforces or remote/branch offices looking for the central management of applications.
<b>Test and Development</b>	VMware Workstation	Test/QA and development product for individuals.
	VMware Lab Manager	Test/QA and development solution for groups and distributed teams.